

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

## **II. Remarks In Response to the Office Action**

### **A. General Remarks**

Claims 1-38 were pending in the application prior to this reply. Claims 39-51 have been added. Therefore, claims 1-51 are pending in the application.

For the convenience of the Examiner, Applicant has reprinted portions of the Office Action mailed 7/16/04 in 10-point type, bolded and italicized. Applicant's statements or arguments immediately follow each section.

### **B. Claim Rejections - 35 USC § 102**

2. *Claims 1-5, 7-8, 10, 12-14 and 19-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Reichle (U.S. Patent No. 6,116,958).*

#### **1. Claims 1-5, 7-8, 10, 12-14 and 19-24 Are Not Anticipated by Reichle**

For the rejection of claims 1-5, 7-8, 10, 12-14 and 19-24, the Office Action states:

*With regard to Claim 1, Reichle discloses a connector comprising: a first connector head (1) having an axis; a second (half of 2 that contains 5) connector head; and a connection mechanism (3) coupling the first connector head (1) and the second (half of 2 that contains 5) connector head, wherein the connection mechanism (3) is adapted to limit the motion of the second (half of 2 that contains 5) connector head in a first plane substantially coincident with the axis and in a second (half of 2 that contains 5) plane substantially orthogonal to the axis. See Figs. 1-8...*

Applicant respectfully traverses the Examiner's conclusion that Reichle anticipates claims 1-5, 7-8, 10, 12-14 and 19-24 in so far as (1) Reichle does not teach or suggest what is characterized in the Office Action and (2) Reichle does not teach or suggest all the limitations in claim 1.

Claim 1 recites:

1. (Original) A connector comprising:  
a first connector head having an axis;  
a second connector head; and  
a connection mechanism coupling the first connector head and the second connector head,  
*wherein the connection mechanism is adapted to limit the motion of the second connector head in a first plane substantially coincident with the axis and in a second plane substantially orthogonal to the axis.*

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

In claim 1, a connector has a connection mechanism that couples a first connector head and a second connector head. The connection mechanism is adapted to limit the motion of the second connector head in a first plane substantially coincident with an axis of the first connection head. In addition, the connection mechanism is adapted to limit the motion of the second connector head in a second plane substantially orthogonal to the axis of the first connection head. Thus, *the connector of claim 1 requires two degrees-of-freedom*. A first degree-of-freedom of the connector lies in a first plane substantially coincident with an axis, and a second degree-of-freedom of the connector lies in a second plane substantially orthogonal to the axis.

To anticipate claim 1, Reichle must disclose all of the limitations of claim 1. In contrast to claim 1 and the characterization of Reichle in the Office Action, *Reichle discloses a connector having a single degree-of-freedom*. In particular, Reichle discloses an adapter having a plug part (1) and socket part (2) connected by an articulated joint (3). The articulated joint (3) swivels the plug part (1) and socket part (2) along one swivel plane. See Reichle at Abstract; col. 3, ll.14-18; and Figs. 2, 7, and 8.

Reichle cannot anticipate claim 1 because Reichle discloses a connector having a single degree-of-freedom provided by an articulated swivel joint. For at least these reasons, Applicant believes that claim 1 and claims 2-5, 7-8, 10, 12-14 and 19-24 depending therefrom are in proper form for allowance and respectfully request that the Examiner indicate the allowance of these claims in the next paper from the Office.

New claims 39-43 have been added to depend directly or indirectly from claim 1 and are, therefore, believed allowable for at least the same reasons presented above. New claims 39-43 are fully supported by the originally filed disclosure and do not add new matter. For example, new claims 39-43 are at least supported as follows:

| Claim(s) | Support in Originally Filed Specification  |
|----------|--|
| 39       | - The limitation directed to a hinge is at least supported by elements 215, 505, 720, 820 in Figs. 4A-4B, 5A-5B, 7A-7B, 8A-8B, and Paragraph [0021]. |

Appl. No.: 10/619,535  
 Amdt. dated January 14, 2005  
 Reply to Office Action of July 17, 2004

| Claim(s)   | Support in Originally Filed Specification   |
|------------|---|
|            | - The limitation directed to a mechanism coupled to the axis of the first connector head for rotation of the first connector head about the axis is at least supported by elements 220, 510, 615, 625, 725, and 825 in Figs. 4A, 5A-5B, 6A-6B, 7A-7B, 8A-8B and Paragraph [0021].   |
| 40, 42, 43 | - The limitations directed to male and female connectors are at least supported by paragraph [0020] and Figs. 2A-2B.<br>- The limitation directed to an antenna is at least supported by paragraphs [0023] and [0030].<br>- The limitation directed to a cable is at least supported by elements 1105 and 1205 in Figs. 11 and 12 and Paragraph [0028]. |
| 41         | The limitation directed to a universal joint is at least supported by paragraph [0021].   |

## 2. Claims 25-33 Are Not Anticipated by Reichle

For the rejection of claims 25-33, the Office Action states:

*...With regard to Claim 25, Reichle discloses an apparatus comprising: a functional unit (2); a connector head (1) having an axis; and means (3) for coupling the functional unit (2) and the connector head (1), wherein the means (3) is adapted to limit the motion of the functional unit (2) in a first plane substantially coincident with the axis and in a second plane substantially orthogonal to the axis. See Figs. 1-8...*

Applicant respectfully traverses the Examiner's conclusion that Reichle anticipates the listed claims 25-33 in so far as (1) Reichle does not teach or suggest what is characterized in the Office Action and (2) Reichle does not teach or suggest all the limitations in claim 25.

Claim 25 recites:

25. (Original) An apparatus comprising:  
 a functional unit;  
 a connector head having an axis; and  
*means for coupling the functional unit and the connector head, wherein the means is adapted to limit the motion of the functional unit in a first plane substantially coincident with the axis and in a second plane substantially orthogonal to the axis.*

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

Claim 25 recites a means plus function limitation in accordance with 35 U.S.C. §112, paragraph 6. Consequently, the corresponding structure, material, or acts described in the specification and equivalents thereof determine limits of the “means for coupling” in claim 25. *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994). For the “means for coupling” in claim 25, *the specification of the present application describes coupling mechanisms allowing for two degrees-of-freedom between connector heads. See, e.g. present specification at Paragraphs [0020]-[0022], [0024]-[0025], and [0028]; and Figs. 2A-2B, 3B, 5A-5B, 6A-6B, 10A, and 12. As disclosed in the specification, one of the connector heads can be fixedly coupled or integral to a functional unit. See, e.g. present specification at Paragraph [0023]; and Figs. 4A-4B.*

As discussed above, *Reichle discloses a connector having a single degree-of-freedom* and does not suggest coupling a functional unit and a connector head in the manner required by claim 25. Reichle cannot anticipate claim 25 because Reichle discloses a connector having a single degree-of-freedom provided by an articulated swivel joint. For at least these reasons, Applicant believes that claim 25 and claims 26-33 depending therefrom are in proper form for allowance, and Applicant respectfully requests that the Examiner indicate the allowance of these claims in the next paper from the Office.

### **3. Claim 34 Is Not Anticipated by Reichle**

For the rejection of claims 34, the Office Action states:

*... With regard to Claim 34, Reichle discloses a system comprising: an electronic device (2) having an external surface (outside 2); and a connector (1) having a first surface (outside 1 ) substantially flush with the external surface (outside 2), the connector (1) operatively coupled to the electronic device (2) and adapted to rotate in a plane parallel to the external surface (outside 2). See Figs. 1-8...*

Applicant respectfully traverses the Examiner's conclusion that Reichle anticipates claim 34 in so far as (1) Reichle does not teach or suggest what is characterized in the Office Action and (2) Reichle does not teach or suggest all the limitations in claim 34.

As amended, claim 34 recites:

34. (Currently Amended) A system comprising:

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

an electronic device having an external surface with an opening defined therein; and  
a connector rotatably positioned in the opening and having a first surface substantially flush with the external surface, said connector operatively coupled to the electronic device and adapted to rotate in a plane parallel to the external surface.

In amended claim 34, an electronic device has an external surface with an opening defined therein. A connector is rotatably positioned in the opening and has a *first surface substantially flush with an external surface of an electronic device*. The connector is operatively coupled to the electronic device and *is adapted to rotate in a plane parallel to the external surface*.

To anticipate claim 34, Reichle must disclose all of the limitations of claim 34. In contrast to claim 34 and the characterization of Reichle in the Office Action, Reichle discloses an adapter having a plug part (1) and socket part (2) connected by an articulated joint (3). The articulated joint (3) swivels the plug part (1) and socket part (2) along one plane. See Reichle at Abstract; col. 3, ll.14-18; and Figs. 2, 7, and 8.

The Office Action characterizes the socket part (2) as an electronic device having an external surface (outside 2) and characterizes the plug part (1) as a connector having a first surface (outside 1). Accepting these characterizations for the sake of argument only, Applicant fails to see how the plug part (1) is positioned within an opening in the external surface of the socket part (2) and how the outside surface of plug part (1) is substantially flush with the outside surface of socket part (2). Moreover, given the lack of any flush arrangement of outside surfaces with one positioned in an opening of the other, Applicant further fails to see how the plug part (1) in Reichle is adapted to rotate in a plane parallel to the outside of socket part (2).

Because Reichle fails to teach or suggests limitations of claim 34, Applicant believes that claims 34 is not anticipated by Reichle and respectfully request allowance of claim 34 in the next paper from the Office.

Support for the amendment to claim 34 can at least be found in the present specification at Paragraph [0029] and Figs. 13A-13B.

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

**C. Claim Rejections - 35 USC § 103**

4. *Claims 9, 11, 15-18 and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reichle (U.S. Patent No. 6,116,958) in view of Stout (U.S. Patent No. 6,394,813)...*

Applicant respectfully traverses the Examiner's conclusion that Reichle in view of Stout renders the listed claims obvious in so far as the combination does not teach or suggest all the limitations in claims 1, 25, and 34, from which the listed claims depend.

As noted above, Reichle does not teach or suggest a connector having two degrees-of-freedom. Furthermore, Stout discloses a connector adapter (16) having a USB plug portion (18) and a peripheral connector (20). The adapter (16) can be rotated so that a peripheral attached to the connector (20) can be maintained in a single preferred position relative to the plug portion (18). See Stout at col. 4, ll. 28-62, and Fig. 1. Thus, Stout also discloses a connector having only a single degree-of-freedom and does not provide limitations missing from Reichle.

Even if it were appropriate to combine these references, which Applicant does not concede, the combination of these references fail to teach or suggest all of the limitations of claims 1, 25, and 34. Accordingly, Applicant believes that the listed claims are not rendered obvious over Reichle in view of Stout and respectfully requests that the Examiner indicate the allowance of these claims in the next paper from the Office.

**D. Allowable Subject Matter**

5. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, the references fail to teach, disclose, or suggest, either alone or in combination, the second and third connector heads being adapted to move independent of each other and in combination with the rest of the limitations of the independent and intermediate claims.

Applicant has rewritten claim 6 in independent form to include all of the limitations of base claim 1 and intervening claim 5. New claims 44-51 have been added to depend directly or indirectly from claim 6. Accordingly, allowance of claims 6 and 44-51 is requested in the next paper from the Office.

Appl. No.: 10/619,535  
 Amdt. dated January 14, 2005  
 Reply to Office Action of July 17, 2004

New claims 44-51 are fully supported by the originally filed disclosure and do not add new matter. New claims 44-51 are at least supported as follows:

| Claim(s) | Support in Originally Filed Specification                                     |
|----------|---|
| 44       | Original Claims 2-3.  |
| 45       | Original Claims 2-3; Paragraph [0026]-[0028]; and Figs 7A-7B, 8A-8B, and 10B. |
| 46       | Original Claims 8-9.  |
| 47       | Original Claims 10-11.  |
| 48       | Original Claim 13.  |
| 49       | Original Claims 14-15.  |
| 50       | Original Claim 20.  |
| 51       | Original Claim 21.  |

#### **E. Conclusion**

6. *The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Enriquez, Sr. et al. (U.S. Patent No. 6,544,069), Bair et al. (U.S. Patent No. 6,758,689), Liao (U.S. Patent No. 6,544,075) and Ikeda et al. (U.S. Patent No. 6,273,734) disclose connectors having connector heads and connection mechanisms to limit the motion of the connector heads.*

The other art made of record, including U.S. Patent Nos. 6,544,069; 6,758,689; 6,544,075; and 6,273,734, neither anticipate nor render obvious any of the pending claims.

#### **F. Claim Fees and Request for Extension of Time**

This reply adds one independent claim and 13 dependent claims to the application beyond which fees have been paid. Accordingly, Applicant believes that the amount of \$425.00 for small entity is due. In addition, this reply is being filed with a petition for a THREE MONTH EXTENSION of time to respond to the Office Action mailed July 16, 2004. Accordingly, Applicant believes that the three month extension amount of \$510.00 for small entity is also due. The undersigned representative authorizes the Commissioner to charge the additional claims fees and the fee for the THREE MONTH EXTENSION to Deposit Account No. 501922/175-0002US.

Appl. No.: 10/619,535  
Amdt. dated January 14, 2005  
Reply to Office Action of July 17, 2004

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application. Should any fees be due for any reason, the undersigned representative authorizes the Commissioner to charge any additional fees that may be required to Deposit Account No. 501922/175-0002US.

To facilitate the resolution of any issues or questions presented by this paper, Applicants respectfully request that the Examiner directly contact the undersigned by phone to further the discussion, reconsideration, and allowance of the claims.

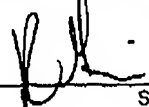
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